

09/24/2001 09/24/2001

AUTHORS Goltzinov, A. L., Ilyinskaya, T. V., Pavlova, N. A.

TITLE Analysis of chlorine-fluoro methanes by gas-liquid chromatography

PERIODICAL Zavodskaya laboratoriya, v. 24, no. 2, 1968, 150 - 151

TEXT: A report is made on the test of Freon-22 for the content of Freon-12, Freon-21, and Freon-23 as impurities. A column of 320 cm length filled with diatomite that was soaked with dibutyl phthalate (100:25), inside diameter 0.7 cm, rate of  $N_2$  (carrier gas) 40 ml/min at  $18^{\circ}C$ , was found to be optimum. The gas to be analyzed ( $\sim 50$  ml) was fed into the column by a dosing device. The difference between the refractive index of the pure carrier gas and that of the mixture, through the column, was measured every 50 sec by an MTP-1 (VTR-1) interferometer. The analysis of the mixtures showed the retention times: Freon-23, 4 min; Freon-12, 6.5 min; Freon-22, 10 min, and Freon-11, 20 min (blurred peak). To shorten the time of analysis and raise the sensitivity to Freon-21, the  $N_2$  rate was increased after 10 min to 60 ml/min, and the temperature to  $40^{\circ}C$  by means Card 1%

analysis of chloro-fluoro methanes. S 052/62/024/032/032/037  
3101/3110

of a TC-10M (10°C) thermometric. Experiments with mixtures of Freon-12, Freon-11, or Freon-13 with  $\text{N}_2$  produced an analysis error of about  $\pm 20\%$  for 0.020%, and of about  $\pm 5\%$  for 0.1 - 0.5% Freon content. There are 1 figure, 1 table, and 5 non-Soviet references. The three references to English-language publications read as follows: W. C. Percival, Anal. Chem., 29, 1, 20 (1958); H. H. Baaslerff, K. Premer, Oil & Gas J., 4, 99 (1958); F. H. Pollard, C. J. Parry, Anal. Chem., 16, 2, 155 (1944).

Card 2.

GOL'DINOV, A.L.; STAEROVSKIY, A.I.

Determination of the composition of some  $U^{IV}$  and  $U^{VI}$  complexes  
in aqueous solutions. Zhur. neorg. khim. 8 no.7:1612-1616  
Jl '63. (MIRA 16:7)  
(Uranyl compounds)

SOV/137-58-7-14859

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 132 (USSR)

AUTHOR: Gol'dinov, A.P.

TITLE: Experiences in the Operation of Forging Furnaces Using Producer Gas (Op'yty ekspluatatsii kuznechnykh pechej, rabotayushchikh na generatornom gaze)

PERIODICAL: V sb. Progressivnye metody shtampovki i kovki, Khar'kov, Oblizdat, 1957, pp 152-158

ABSTRACT: The consumption of gas required for the production of a single conventional unit of manufacture has dropped in the past 10 years from 165 to 55 m<sup>3</sup>. An obstacle to increasing the output of the furnaces (F) and particularly of forging furnaces was the difficulty of obtaining temperatures > 1200°C when working with gas of 1250 kcal/m<sup>3</sup> heating value. To increase productivity and improve the operation the heating value of the gas employed was raised to 1250 kcal/m<sup>3</sup>, and recuperators were installed to heat the air to 250-300° in all the forging F; this afforded a reduction of 10% in gas consumption. It is noted that installed recuperators of the "Termoblok" model function 3-5 years without replacement, and RIM-3 recuperators work 3-4 years without replacement.

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SOV/137-58-7-14859

Experiences in the Operation of Forging Furnaces Using Producer Gas

years, so long as the products of combustion are mixed to attain temperatures of 400-500°. Tubular recuperators are also employed. For further increase in temperature in the F and fuel economy the gas, too, is heated to 200-220°. Automatic temperature control is effected with the aid of an RM-47 electronic control and a number of other instruments. A description is presented of measures to increase the life of the F masonry and also of a method developed by this plant to cleanse anthracite producer gas of S. The gas is rendered 80-90% pure.

M.Z.

1. Furnaces--operation    2. Fuels--Thermal effects    3. Other--Applications

Card 2/2

L 27354-66 EWT(m)/T/ETC(m)-6 WW/DJ

ACC NR: AP6007710

(A)

SOURCE CODE: UR/0413/66/000/003/0104/0104

AUTHORS: Grauze, G. N.; Shvetsov, A. V.; Gol'dinov, G. V.

34

B

ORG: none

TITLE: Composite bearing insert. Class 47, No. 178615

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 104

TOPIC TAGS: antifriction bearing, antifriction material

17

ABSTRACT: This Author Certificate presents a composite bearing insert containing laminae (see Fig. 1). To improve the antifriction properties, the plates are made

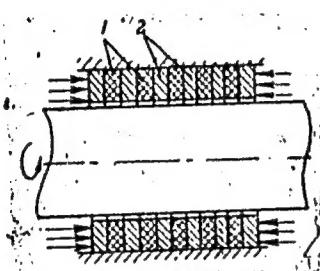


Fig. 1. 1 and 2 - laminae.

UDC: 621.822.5

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L 27354-66

ACC NR: AP6007710

of different plastics or plastic and metal, stacked in alternate order and axially loaded during assembly by spring-loaded or elastically tightened flanges. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 23May63

Card 2/2 PB

Gol'dinov, L. I.

2401. PURIFYING GASES OF SULFUR BY USING LIQUIDS PRODUCED FROM ACETYLIC  
MANUFACTURE. Gol'dinov, L. I. (Gos. Arz. Obz. Nauk. SSSR), 1956, No. 12,  
127 obstr., in Chem. Abstr., 1956, vol. 50, 15446, 150-5. An acid or gas  
containing 1.6-1.9 g. sulfur/cubic dm hydrogen sulfide (in saturated side) is  
cooled and scrubbed with a saturated aqueous solution (II) of dilute hydrochloric  
acid. Sulfur content to about 0.3-0.4% is measured by dissolving side  
stream from the cooling water circuit (I) of the preceding gas plant in the  
acetylene plant where it is passed through the spent carbide filter containing  
barium prior to return to II. Some carbon dioxide is also removed from the  
feed gas. Carbonate deposits are removed from the circulating pump  
by dilute hydrochloric acid rinse once every two months; previously, operating  
conditions in II had necessitated replacing this pump after a year.

GOL'DINOV, L.P.

Removal of sulfur from gas by using wastes from acetylene production.  
Gaz.prom. no.4:11-12 Ap '56. (MIRA 10:1)  
(Acetylene) (Sulfur) (Gases)

GOL'DINOV, L.P.

Carburizing internal hollow parts by means of natural gas in  
a protective gas atmosphere. Gaz.prom. 5 no.1:30 Ja '60.  
(MIRA 1):1)

(Case hardening) (Gas, Natural)

GOL'DINOV, L.R.; GORDELADZE, G.E.; KHASHEA, M.L., red.; KHOSHTARIYA, V.G.,  
red. izd-va;

[Soviet Abkhazia] Sovetskaia Abkhaziia. Tbilisi, Gos. izd-vo  
"Sabchota Sakartvelo," 1960. 1 v. (MIRA 14:10)  
(Abkhazia—Views)

DELBA, M.K., glav. red.; BGAZHEA, Kh.S., red.; GOL'DINOV, L.R., red.; KHAKH-MIGERI, M.D., tekhn. red.

[The Abkhazian A.S.S.R.] Abkhazskaia ASSR. Sukhumi, Abgosizdat, 1961.  
148 p. (MIRA 14:8)  
(Abkhazia—Economic conditions)

ATTACHMENT  
TITLE: Gagarine, Z.I., Engineer  
PROJECT NUMBER: 207/12-25r-2-10/51  
SUBJECT: Soviet Space Program: The First Man in Space  
ABSTRACT: A brief history of the Soviet space program from its inception in 1957 until the first man in space, Yuri Gagarin, was sent into orbit around the earth in April 1961. The author, Z.I. Gagarine, was a member of the Soviet space program and was involved in the development of the Vostok space capsule.

TECHNICAL: Technical information on the first man in space, Yuri Gagarin, is provided. The author, Z.I. Gagarine, describes his experiences as a test pilot and engineer in the Soviet space program. He discusses the development of the Vostok space capsule and the preparation for the first man in space. He also provides information on the post-flight analysis of the Vostok capsule and the recovery of the crew. The author, Z.I. Gagarine, is currently working at the Central Research Institute of Aviation and Space Technology in Moscow, Russia.

25 (1)

SCV/110-10-10-2/23

AUTHOR: Volkonsky, V.A., and Lavy, I.A. Kerch, Sov. S.S.R.  
Semirovskiy, V.I.

TITLE: "An Analysis of the System Error Produced by Discrete Action Integrators"

PERIODICAL: Izmeritel'naya Tekhnika, 1964, No. 10, pp. 1-6 (USSR)

ABSTRACT. An instrumental miscalculation of an integrator occurs only when the  $\phi_i$  deflection angle of the output shaft of an integrator varies from cycle to cycle and the lever which introduces the element to be integrated remains in a fixed position. This variation is caused, for instance, by delayed switch-off-and-on of the counter in each integration cycle. The miscalculation represents the difference between  $\phi_i$  and the assembly average of the deflection angle  $\phi_{oi}$

$$\Delta\phi_i = \phi_i - \phi_{oi}$$

The corresponding miscalculation of the measured element for each integration cycle will be  $\beta_u = K\Delta\phi_i$  (1)

Card 1/4

SCV/115-59-10-2/29

The Analysis of Instrument Error Produced by Discrete Action Integrators

where  $k$  is the proportional coefficient between the reflection angle and the measured element. The authors further describe an experimental evaluation method of an instrumental miscalculation and of the integration error derived from this miscalculation. The integration error corresponding to a time period ( $0 \rightarrow T$ ) will be

$$\Delta_u = \int_0^T f_u(t) dt \quad (2)$$

As the assembly average of an instrumental miscalculation  $M\Delta_u = 0$ , so the assembly average of integration error derived from this miscalculation  $M\Delta_u$  is also 0. The variance of the integration error, derived from the formula (2) will be

$$D\Delta_u = \iint_0^T R_u(t,s) dt ds$$

Card 2/4

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The deviation of Instrumental error produced by Discrete Alternative Integration is

$\sigma_{\Delta u} = \sqrt{\int_{T_0}^{T_1} R_u(\tau) d\tau}$  where  $R_u(\tau)$  is a correlation function of instrumental error variation. If we admit the stability and the ergodicity of the process then

$$\sigma_{\Delta u} = \sqrt{\int_{T_0}^{T_1} R_u(\tau) d\tau} \approx \sqrt{\int_{T_0}^{T_1} R_u(\tau) d\tau} \quad (3)$$

where  $R_u(\tau) = R_u(0, \tau)$ . The expression of a correlation function being

$$R_u(\tau) = \frac{1}{Df_u} \int_{T_0}^{T_1} R_u(\tau') d\tau' \quad (4)$$

Eqns (3) and (4) formulae give

$$\sigma_{\Delta u} = \sqrt{T_1 - T_0} \sqrt{Df_u} \quad (5)$$

Thus to determine the variance of the integration error  $Df_u$  we must know the variance of the instrumental mis- $u$  calculation  $Df_u$  and the value  $T_1 - T_0$ . These values

Page 7, A

JOV. 116 54 10-27-74

The Analysis of Instrument Error Produced by Discrete Action Integrators

were determined experimentally for integrators produced by the Khar'kovsky plant (Kharkov Plant) "Kri" and by the "Manometr" Plant. A detailed description of this experiment is given. There are 3 graphs, 1 table and 1 Soviet reference.

Card 4/4

GOL'DINOV, M.A.

Unit for determining frequency characteristics of differential  
manometer-type flowmeters. Izm.tekh, no.9:49-51 S '61.  
(MIRA 14:8)

(Flowmeters--Testing)

GOL'DINOV, M. A.

Determining the error in measuring transfer functions of instruments with linear dynamic system. Trudy inst. Kom. stand. mer i izm. prib. no. 57: 79-46 '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Komiteta standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR.

(Measuring instruments)

SOURCE CODE: UR/0000/66/000/000/0148/0152

AUTHOR: Gol'dinov, M. A.

25

ORG: none

TITLE: Increasing the operating speed of pneumatic extremal controllers

SOURCE: AN SSSR. Institut avtomatiki i telemekhaniki. Pnevmoavtomatika (Pneumatic automation). Moscow, Izd-vo Nauka, 1966, 148-152

TOPIC TAGS: pneumatic control, pneumatic servomechanism, optimal control

ABSTRACT: A high speed pneumatic extremal controller developed at the Moscow Polygraphic Institute is described. The controller is intended to maintain the quantity to be optimized at a maximum in inertial systems. The controller's search time is faster for first order objects than for second order. It provides high speed switching for the servo element and finds that position at which the first derivative of the quantity to be controlled is a maximum. The pneumatic circuitry uses USEPPA elements, the BP-28P lead unit and one AUS element. A schematic and time diagram of the controller are given. One laboratory test is described in which a 45-60 sec search time involved a 2-3% hunting period. Orig. art. has: 4 figures, 9 formulas. [14]

SUB CODE: 13/ SUBM DATE: 03Feb66/ ORIG REF: 003

Card 1/1, *Sw*

L'8344-66 EEC(k)-2/EWA(h)/EWP(k)/EWT(d)/EWT(1)/EMP(v)/EMP(1)/EWP(h)

ACC NR: AP5025750

SOURCE CODE: UR/0286/65/000/018/0097/008

AUTHORS: Gol'dinov, M. Ya.; Kazakevich, V. V.

53  
B

ORG: none

TITLE: Fast acting pneumatic regulator. Class 42, No. 174866

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 97-98

TOPIC TAGS: pneumatic regulator, automatic control, PNEUMATIC CONTROL, PNEUMATIC CONTROL SYSTEM

ABSTRACT: This Author Certificate presents a fast acting pneumatic regulator based on USEPPA elements containing a first derivative transducer, a signum-relay, a checking reverser commutator, a reverse trigger, and an actuating mechanism. To increase the regulator stability margin during drifting of an extreme characteristic, the signum-relay output is simultaneously connected to the inlet of a blocking relay and through a discrete memory element to the inlet of an intermediate relay. The latter is connected to the blocking relay, and its outlet is connected to the reverser trigger.

SUB CODE: 13/ SUBM DATE: 29Apr64

jw  
Card 1/1

UDC: 621-525-55

"APPROVED FOR RELEASE: 09/24/2001

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SECRET  
REF ID: A6571

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515710004-8"

GOL'DINOV, V.I.

Courses for improving the qualifications of information workers  
of the Leningrad Economic Council. NTI no.8.10-12 '64.  
(MIRA 17.12)

AGI LIBRARY, 7<sup>th</sup>, FEDERAL BUREAU OF INVESTIGATION

Prepared for cataloging and other information retrieval systems  
and coded with perforated borders, punched cards with machine  
reading and security and control cards. N° 7 25-30-165.  
(MRA 1819)

L 15221-66

ACC NR: AP6000039

SOURCE CODE: 20315/65/000/007/0025/0030

33

B

AUTHOR: Gol'dinov, V. I.; Yuferova, I. A.; Gorobets, F. M.

ORG: none

TITLE: Experience in the development and practical application of information-search systems employing edge-perforated punched cards, machine-sorter punched cards, and superimposed punched cards

SOURCE: Nauchno-tehnicheskaya Informatsiya, no. 7, 1965, 25-30

TOPIC TAGS: scientific information, information storage and retrieval, data processing personnel, punched card

ABSTRACT: The authors describe their experiences in the development and utilization of three types of information-search systems (ISS) which were displayed at the exhibition of proposals of inventors, efficiency experts, and innovators of Leningrad economic region which began in October, 1964. All three ISS (employing edge-perforated punched cards, 80-column machine-sorter punched cards, and 80-column superimposed punched cards) were developed on the basis of a single fund of information consisting of 750 original documents dealing with the technical descriptions of some of the displays at the exhibition, drafts, and a technical-information newsheet. Both the ISS employing the edge-perforated cards and the sorter cards used a unified search-notation code system. A descriptive dictionary

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UDC: 002.513.5:676.815

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ACC NR: AP6000039

containing 719 terms was developed for the superimposed card ISS. Comparative results of the operation of the three types of ISS are presented. The expediency of introducing the ISS described into the practical operations of information sciences groups is discussed, and the need of a comparative study of the effectiveness of each type of ISS is indicated. Authors express their sincere gratitude to associates of VINITI V. A. Polushkin, L. P. Shchegolev, A. I. Rozanov, and K. A. Razlogova, and associates of NIIMASh K. A. Nikolayev, E. N. Mil'man, Ye. N. Afanas'yeva, M. A. Koshlakova, and N. I. Lakshina for their great practical assistance in organizing the work of the information-request department of the exhibition of Leningrad innovators and valuable advice. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 05, 09 / SUBM DATE: 06Mar65

TS  
Card

2/2

BUGAY, P.T. [Buhai, P.T.]; VIDUYEV, M.G. [Viduiiev, M.E.], prof., doktor tekhn. nauk, retsenzent; YEVSE'EV, S.V. [Evaieiev, S.V.], doktor tekhn. nauk, retsenzent; GOL'dIRKOV, B.V. [Gol'dirkov, B.V.], dots., kand. tekhn. nauk, retsenzent; LISICHANSKIY, O.S. [Lysychanskiy, O.S.], kand. tekhn. nauk, otv. red.; POLUBICIKO, B.V., red.; SARANYUK, T.V., tekhnred.

[Theory of errors and the method of least squares] Teoriia o-mylok i sposib naimenshykh kvadratich. L'viv, Vyd-vo L'viv's'ko-ho univ. Pt. 1. 1960. 366 p. (NIRA 15:11)

(Least squares)

(Geodesy)

60-1215

- 11 -

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.	115.	116.	117.	118.	119.	120.	121.	122.	123.	124.	125.	126.	127.	128.	129.	130.	131.	132.	133.	134.	135.	136.	137.	138.	139.	140.	141.	142.	143.	144.	145.	146.	147.	148.	149.	150.	151.	152.	153.	154.	155.	156.	157.	158.	159.	160.	161.	162.	163.	164.	165.	166.	167.	168.	169.	170.	171.	172.	173.	174.	175.	176.	177.	178.	179.	180.	181.	182.	183.	184.	185.	186.	187.	188.	189.	190.	191.	192.	193.	194.	195.	196.	197.	198.	199.	200.	201.	202.	203.	204.	205.	206.	207.	208.	209.	210.	211.	212.	213.	214.	215.	216.	217.	218.	219.	220.	221.	222.	223.	224.	225.	226.	227.	228.	229.	230.	231.	232.	233.	234.	235.	236.	237.	238.	239.	240.	241.	242.	243.	244.	245.	246.	247.	248.	249.	250.	251.	252.	253.	254.	255.	256.	257.	258.	259.	260.	261.	262.	263.	264.	265.	266.	267.	268.	269.	270.	271.	272.	273.	274.	275.	276.	277.	278.	279.	280.	281.	282.	283.	284.	285.	286.	287.	288.	289.	290.	291.	292.	293.	294.	295.	296.	297.	298.	299.	300.	301.	302.	303.	304.	305.	306.	307.	308.	309.	310.	311.	312.	313.	314.	315.	316.	317.	318.	319.	320.	321.	322.	323.	324.	325.	326.	327.	328.	329.	330.	331.	332.	333.	334.	335.	336.	337.	338.	339.	340.	341.	342.	343.	344.	345.	346.	347.	348.	349.	350.	351.	352.	353.	354.	355.	356.	357.	358.	359.	360.	361.	362.	363.	364.	365.	366.	367.	368.	369.	370.	371.	372.	373.	374.	375.	376.	377.	378.	379.	380.	381.	382.	383.	384.	385.	386.	387.	388.	389.	390.	391.	392.	393.	394.	395.	396.	397.	398.	399.	400.	401.	402.	403.	404.	405.	406.	407.	408.	409.	410.	411.	412.	413.	414.	415.	416.	417.	418.	419.	420.	421.	422.	423.	424.	425.	426.	427.	428.	429.	430.	431.	432.	433.	434.	435.	436.	437.	438.	439.	440.	441.	442.	443.	444.	445.	446.	447.	448.	449.	450.	451.	452.	453.	454.	455.	456.	457.	458.	459.	460.	461.	462.	463.	464.	465.	466.	467.	468.	469.	470.	471.	472.	473.	474.	475.	476.	477.	478.	479.	480.	481.	482.	483.	484.	485.	486.	487.	488.	489.	490.	491.	492.	493.	494.	495.	496.	497.	498.	499.	500.	501.	502.	503.	504.	505.	506.	507.	508.	509.	510.	511.	512.	513.	514.	515.	516.	517.	518.	519.	520.	521.	522.	523.	524.	525.	526.	527.	528.	529.	530.	531.	532.	533.	534.	535.	536.	537.	538.	539.	540.	541.	542.	543.	544.	545.	546.	547.	548.	549.	550.	551.	552.	553.	554.	555.	556.	557.	558.	559.	560.	561.	562.	563.	564.	565.	566.	567.	568.	569.	570.	571.	572.	573.	574.	575.	576.	577.	578.	579.	580.	581.	582.	583.	584.	585.	586.	587.	588.	589.	590.	591.	592.	593.	594.	595.	596.	597.	598.	599.	600.	601.	602.	603.	604.	605.	606.	607.	608.	609.	610.	611.	612.	613.	614.	615.	616.	617.	618.	619.	620.	621.	622.	623.	624.	625.	626.	627.	628.	629.	630.	631.	632.	633.	634.	635.	636.	637.	638.	639.	640.	641.	642.	643.	644.	645.	646.	647.	648.	649.	650.	651.	652.	653.	654.	655.	656.	657.	658.	659.	660.	661.	662.	663.	664.	665.	666.	667.	668.	669.	670.	671.	672.	673.	674.	675.	676.	677.	678.	679.	680.	681.	682.	683.	684.	685.	686.	687.	688.	689.	690.	691.	692.	693.	694.	695.	696.	697.	698.	699.	700.	701.	702.	703.	704.	705.	706.	707.	708.	709.	710.	711.	712.	713.	714.	715.	716.	717.	718.	719.	720.	721.	722.	723.	724.	725.	726.	727.	728.	729.	730.	731.	732.	733.	734.	735.	736.	737.	738.	739.	740.	741.	742.	743.	744.	745.	746.	747.	748.	749.	750.	751.	752.	753.	754.	755.	756.	757.	758.	759.	760.	761.	762.	763.	764.	765.	766.	767.	768.	769.	770.	771.	772.	773.	774.	775.	776.	777.	778.	779.	780.	781.	782.	783.	784.	785.	786.	787.	788.	789.	790.	791.	792.	793.	794.	795.	796.	797.	798.	799.	800.	801.	802.	803.	804.	805.	806.	807.	808.	809.	810.	811.	812.	813.	814.	815.	816.	817.	818.	819.	820.	821.	822.	823.	824.	825.	826.	827.	828.	829.	830.	831.	832.	833.	834.	835.	836.	837.	838.	839.	840.	841.	842.	843.	844.	845.	846.	847.	848.	849.	850.	851.	852.	853.	854.	855.	856.	857.	858.	859.	860.	861.	862.	863.	864.	865.	866.	867.	868.	869.	870.	871.	872.	873.	874.	875.	876.	877.	878.	879.	880.	881.	882.	883.	884.	885.	886.	887.	888.	889.	890.	891.	892.	893.	894.	895.	896.	897.	898.	899.	900.	901.	902.	903.	904.	905.	906.	907.	908.	909.	910.	911.	912.	913.	914.	915.	916.	917.	918.	919.	920.	921.	922.	923.	924.	925.	926.	927.	928.	929.	930.	931.	932.	933.	934.	935.	936.	937.	938.	939.	940.	941.	942.	943.	944.	945.	946.	947.	948.	949.	950.	951.	952.	953.	954.	955.	956.	957.	958.	959.	960.	961.	962.	963.	964.	965.	966.	967.	968.	969.	970.	971.	972.	973.	974.	975.	976.	977.	978.	979.	980.	981.	982.	983.	984.	985.	986.	987.	988.	989.	990.	991.	992.	993.	994.	995.	996.	997.	998.	999.	1000.
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MOLDOVAN, H.; WEINBACH, R.; STERESCO, P.; SFEDIAN, O.; GOLDIS, E.

The agglutination of tanned formaldehyde-treated human erythrocytes by human sera (TFE agglutination). III. Value of TFE test in the diagnosis of viral hepatitis (VII). Arch. Roum. path. exp. microbiol. 20 no.3:517-522 S '61.

1. Travail de l'Hopital No. 2 de Maladies contagieuses Bucarest et de l'Institut "Dr. I. Cantacuzino".  
(HEPATITIS, INFECTIONS diagnostique) (AGGREGATION)

NICOLAU, I.; GOLDIS, Gh.; MIHAIL, Georgeta.

The study of blood magnesium in convulsive syndromes in infants.  
Arch. roum. path. exp. microbiol. 22 no.4:7017-1022 S-D'63

1. Travail de l'Hopital Clinique de Fundeni - Bucarest.

DIACONITA, Gh.; GOLDIS, Gh.

Pathomorphology and pathogenesis of pulmonary paragonimiasis.  
Acta morph. acad. sci. Hung. 12 no.3:315-331 '64

1. Section of Pathology and Nampho Hospital, Korean People's  
Democratic Republic, and Section of Pathology Institute of  
Phthisiology, Bucharest.

\*

ZAKRZHEVSKIY, Ye.B., polkovnik med.sluzhby, doktor med.nauk; GOL'DIS, G.M.  
polkovnik med.sluzhby; PROTOPOPOV, I.I., podpolkovnik med.sluzhby

Changes in blood and bone marrow in Far Eastern infectious hemorrhagic  
nephrosonephritis. Voen.-med.zhur. no.10:55-59 0 '59. (MIRA 12:12)  
(EPIDEMIC HEMORRHAGIC FEVER, pathol.

blood and bone marrow changes (Rus))

(BLOOD

picture in epidemic hemorrh. fever (Rus))

(BONE MARROW, pathol.

in epidemic hemorrh. fever (Rus))

S/146/63/006/001/013/014  
D201/D308

AUTHORS: Churilovskiy, V. N. and Gol'dis, K. I.

TITLE: An apochromatic katoptric system replacing a parabolic mirror

PERIODICAL: Izvestiya vysshikh uchebnykh zavodov. Priborostroyeniye, v. 6, no. 1, 1963, 118-126

TEXT: The authors consider the design of an apochromatic katoptric system which can replace a parabolic mirror. The system has no aspherical surfaces and consists of two lenses (with an air gap between them) made of optical glass of the same composition and manufacture. The closing surface of the second lens is coated with a reflective layer. The analysis of design formulas and experimental measurements show that the third order aberration of the system is the same as that of a parabolic mirror and that the system also exhibits the apochromatic correction over a wide range of the spectrum. There are 4 figures and 2 tables.

Card 1/2

An apochromatic katoptric ...

S/146/63/006/001/013/014  
D201/D308

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki  
(Leningrad Institute of Precision Mechanics and Optics)

SUBMITTED: April 5, 1962

Card 2/2

GOL'DIS, L.S.

Organization and introduction of blood transfusion into the practice  
of rural medical establishments. Akt.vop.perel.krovi no.4:269-273 '55.  
(MIRA 13:1)

1. Kurskaya oblastnaya stantsiya perelivaniya krovi.  
(KURSK PROVINCE--BLOOD--TRANSFUSION)

GOL'DIS, L. S.

SV, M.Yu.; GOL'DIS, L.S.

Problem of the transmission of infectious hepatitis (Botkin's disease) in blood transfusion. Probl.gemat. i perel.krovi 2 no.3:  
46-50 My-Je '57. (MLRA 10:8)

1. Iz Kurskoy oblastnoy stantsii perelivaniya krovi (dtr. L.S.  
Gol'dis)  
(JAUNDICE, HOMOLOGOUS SERUM, case reports (Rus))

GOL'DIS, L.S.

Use of polyglucin in the treatment of shock. Akt.vop.perel.krovi  
no.7:347-349 '59. (MIRA 13:1)

1. Kurskaya oblastnaya stantsiya perelivaniya krovi.  
(DEXTRAN) (SHOCK)

GOL'DIS, L.S.; KHAKHALEV, S.I.

Efektivnost' polyglucin in the treatment of shock. Probl. zemstv. i p. I. krovi L no. 10.57-59 0 '59. (MIRA 13:8)

1. Iz Kurskoy oblastnoy stantsii perelivaniya Krovi (dir. - L.S. Gol'dis) i fakul'tetskoy khirurgicheskoy kliniki (zav. - M.G. Iudintsev) Kurskogo meditsinskogo instituta.  
(SHOCK) (BLOOD PLASMA SUBSTITUTES)

GOL'DIS, L.S.

Centralized delivery of preserved blood and blood preparations to therapeutic institutions. Zdrav. Ros. Feder. 4 no.9:36-37 S '60.  
(MIRA 13:9)

1. Glavnnyy vrach Kurskoy oblastnoy stantsii perelivaniya krovi.  
(BLOOD—COLLECTION AND PRESERVATION)

GOL'DIS, L. S.

Period of usefulness of dry plasma dehydrated on apparatus of  
Rosenberg's system. Probl. gemat. i perel. krovi no.12:47-48  
'61. (MIRA 15:6)

1. Iz Kurskoy oblastnoy stantsii perelivaniya krovi (dir. L. S.  
Gol'dis)

(BLOOD--COLLECTION AND PRESERVATION)

D'yAKOVA, L.Y., student; K. ZAKHAROV, V.N., professor; I.V. [redacted]  
[Lysyukova, A.M.]; P. SAVILOVICH, N.I. [redacted]  
M.S.; D. SOKHOVA, L.G., professor; G. V. [redacted];  
PRIMAKOV, S.V.; YUROK, M.A.; GOL'DIS, S.M. [redacted]; G. S.  
BANAN, M.A.; KOGACHEVSKAYA, I.I. [redacted]; absent;  
SHTANIKO, L.V.; GAGAMIKOV, V.D. [redacted]

Annotations and authorship absent. File number  
no. 6: 33-36 \*\*\*.

1. Katedra pediatrii Zapovednizkogo instituta vospriyavshy  
vraчnye vrachy (for D'yakova). 2. Katedra pediatrii Odesskogo  
meditsinskogo instituta (for Zuzanova). 3. Katedra nizkikh sionnykh  
bol'zny Odeskogo meditsinskogo instituta (for Litvinenko). 4.  
Kafeedra detskih iatroskopicheskikh bol'zny Kirovogradskogo meditsinskogo  
instituta (for Peschnelevskaya). 5. Katedra nizkikh  
infektionnykh bol'zny krymskogo meditsinskogo instituta (for  
Bozhanova). 6. Kafeedra fakulteticheskoy pediatrii Krymskogo meditsinskogo  
instituta (for Seify). 7. Shchiternaya iol'naia v. iokovo-  
Antrasit (for Primakov). 8. Starosamoorskay regional'naya bol'nitsa  
Livovskoy oblasti (for Yant). 9. Vinnitskaya regional'naya bol'nitsa  
No. 2 (for Gol'dis). 10. Kafeedra rigiyanu K.y.v. v. i. institutu  
usovershenstvovaniya vrachay (for Banan, Kirovograd). 11.  
Kafeedra urologii Kiyevskogo meditsinskogo universiteta (for Shtanikov).  
12. 9-ya zoreiskaya bol'nitsa v. i. obnoveniye (for Gagamikov).

S/27C/63/000/002/022/052  
A052/A126

AUTHORS: Gol'dis, Z.S., and Gurevich, L.I.

TITLE: Producing cutting tools by the arc build-up method"

PERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no. 2, 1963, 94, abstract 2B480 (In collection: "Vnedreniye peredovoy tekhnol. svarki", no. 1, Irkutsk, 1960, 58-61)

TEXT: The technology is described for producing milling cutters by the method of arc build-up of blanks with grooves (by the number of built-up teeth) milled in them. The process is employed at the Irkutsk heavy machinery plant. The build-up is performed with P-18 (H-18) high-speed steel electrodes 6-8mm in diameter with a coating 1.5-2.5mm thick of the following composition (in %): commercial chalk 54, fluorite 26, ferrochrome 8, ferrosilicon 8, ferromanganese 2, argentographite 2, and water glass 30% (of the sum of dry components) on direct current of reversed polarity. To prevent the swelling and damage of the coating a thorough preliminary passivation of ferrosilicon and ferromanganese is made. The blanks heated to 550-600°C are fixed by the ends in the center of a special turning device

Card 1/2

Producing cutting tools...

S/276/63/000/002/022/052  
A052/A126

after which the build-up of teeth of the tool begins, the blank being turned each time by 180°. After build-up of the first layer (0.8-0.7 of the depth of the groove) the seam and the nearby surface are cleaned by means of a pneumatic hammer and a steel brush, and then the blank is heated to 550-600°C by turning. After building-up the second layer the blanks are cooled slowly in the furnace and are then heat treated. The hardness of built-up metal after annealing is within RC = 22-26 (HB = 235-262). As a result of a reduced-consumption of high-speed steel the plant saved 40,000 rubles a year.

L. Kamionskiy

(Abstracter's note: Complete translation.)

Card 2/2

COLKRAUT, P.

2d Meeting of Polish Heating Engineers. p. 64.

GAZ, WODA I TECHNIKA SANITARNA. (Stowarzyszenie Naukowo-Techniczne  
Inżynierów i Techników Sanitarnych, Ogrzewania i Gazownictwa) Warszawa,  
Poland. Vol. 33, no. 2, Feb. 1959.

Monthly list of East European Accessions Index (EEAI), LC, Vol. 8, no. 6,  
June 1959  
uncl.a.

GOL'DIMAKHER, P.E.; GLIZER, Z.Kh.

Casting heating radiators in chill molds. Lit.proizv. no.11:15-  
17 N '62. (Molding (Foundry)) (Radiators) (MIRA 15:12)

GOL'DMAKHER, S.E.

Migration of foreign bodies in the organism. Vest.rentg. i rad.  
33 no.1:82-84 Ja-F '58. (MIRA 11:4)

1. Iz rentgenologicheskogo kabineta (zav.S.E. Gol'dmakher)  
Chernovitskoy psikhonevrologicheskoy bol'nitsy (glavnnyy vrach N.F.  
Chubinets).

(FOREIGN BODIES  
migration, x-ray localization (Rus))

GOL'DMAN, A.

The State Planning Committee of the Council of the Ministers of  
the U.S.S.R. has the word. Mest.prom.i khud.promys. 3 no.4:12  
(MIRA 15:5)  
Ap '62.

1. Glavnyj iukhgalter Dnepropetrovskoy trikotazhnoy fabriki.  
(Knit goods industry) (Yarn)

KOLODMAN, A.

Efficiency promotion and inventions in the Dnepropetrovsk harbor.  
Rech. transp. 21 no.2:17-19 F. 1991. (EIAA 15:3)

I. Glavnyy inzh. Dnepropetrovskogo portu.  
(Dnepropetrovsk--Harbor) (Cargo handling--Technological innovations)

SITEN, HEN., J.; KIRKIN, R.; BRAYNE, A.S.; Prinimati uchastiyu:  
SITEN, H.; KIRKIN, R.; ZEVONOVICH, YU.; MURKIN, V.; GOL'IMAN, A.

Oxidation and phosphorylation in mitochondria of the embryonic  
muscle. Biokhimika 29 no.4:653-661 Jl-Ag '64.

(MIRA 18:6)

1. Kolejira biokhimii zivotnykh Moskovskogo gosudarstvennogo  
universiteta imeni Lomonosova.

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515710004-8

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515710004-8"

GOL'DMAN, A. G.

"To the Theory of the Imbibation of Water by the Soil," Pedology,  
No.1, 1947

GOLDMAN, A.

A-53

✓

Bo  
[REDACTED]  
01, page 13. Effect with  $\text{Cu}_2\text{O}$  rectifiers. A. Goldman,  
Z. Phys., vol. 3, p. 334, 1923. In German only a con-  
sideration of the electrical properties of  $\text{Cu}_2\text{O}$  rectifier photo-cells and of  
the suitable methods of their application, which are the same for  
photo-cells as for rectifiers. The other properties of  $\text{Cu}_2\text{O}$  rectifiers and  
photo-cells are not discussed. The properties of  $\text{Cu}_2\text{O}$  rectifiers are found to be covered by the  
above references. The relations are shown to be in accordance with the  
experimental results recorded by other workers, and with experiments  
performed in the paper. D. H. F.

GOL'DMAN, A. G.

Gol'dman, A. G. "Pedagogical ideas of A. G. Stoletov," Vestnik vyssh. shkoly, 1948,  
No. 12, p. 22-25 - Bibliog: 27 items

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949).

卷之三

Self-managed teams "are widely used in business and have been adopted by many organizations," says Dr. Michael H.

<sup>1</sup> See also the discussion of the relationship between the two in the introduction.

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000515710004-8"

GOLDMAN, A. G.

USSR/Physics - Photoconductivity      Jan/Feb 52

"Synchronous Illuminator - A Method to Study Photoconductivity," A. G. Goldman, Vologda State Pedagogical Inst

"Iz Ak Nauk SSSR, Ser Fiz" Vol XVI, No 1, pp 133-135

Alternating illumination is used to study photoelectric phenomena in semiconductors (cf. L. Bergmann, Phys. Zs., 33, 209 (1932); L. Bergmann and J. Haensler, Zs.f. Physik, 100, 50, 1936; B. Schoenwald, Ann. der Physik, 15, 395, 1932). Describes synchronous illuminator built by himself, and presents example of computation of current. Indebted to V. S. Lavgovskiy and A. I. Malakhov.

218T98

GOLDMAN, R.G.

Sensitization of the photoconductivity of silver bromide by organic dyes. A. G. Goldman and I. A. Asimov. U.S. Pat. No. 355,617 (1931); R. K. Finsenbeck and A. N. Tsvetko. Mokotov. Bedzhekh. (1931). 24 Mar. 1931. C.A. 33, 73164. — This photocand. of films of AgI, prepared and treated with various org. dyes by a described method, was tested as a function of wave length ( $\lambda$ ) in the 400-940 m $\mu$  range. The dyes and the tabulated  $\lambda$  in m $\mu$  of maximal photocand. for each are: methyl green (I), 620; crystal violet (II), 480-840; basic fuchsin (III), 640; methylene blue (IV), 480; iodocoumarin (V), 520; erythrosin (VI), 520; safranine, 480; fluorescein, 480; Dismarck Brown, 640; Congo red, 540; neutral red, 480-510; eosin, 520; m.p. 110°; euc green, 520; Na eosin, 620; methyl violet, 480-110; bromophenol blue, 600; dimethylaminobenzene, 180-840. Graphs of photocand. as a function of  $\lambda$  are given for films dyed with I-VI and for undyed AgI. The cand. (c) of the latter after cessation of illumination is graphed as a function of time. J. W. Lewellen. Jr.

GOL'DMAN, A.G., professor.

Practical approach to the teaching of phosphorescence. Fiz.v  
shkole 14 no.2:46-48 Mr-ap '54. (MLIA 7:2)

1. Gorod Balashov, Pedagogicheskiy institut.  
(Phosphorescence--Study and teaching)

A-5

USSR/General Section - Problems of Teaching.

Abs Jour : Referat Zhur - Fizika, No 4, 1957, 8251

Author : A.G. Goldman

Inst :  
Title : Certain Problems in the Teaching of Physics in U.S.  
Higher Schools (from the Pages of the Americal Journals).

Orig Pub : Vestn. vyssl. shroly, 1956, No 10, 48-52

Abstract : No abstract.

Card 1/1

AUTHOR: Dobkin, A. J.

TITLE: Spectral Distribution of the Fluorescence of a Poloxamer Photo Cell During the Photo-Darkening Process (Spectral Response of a Poloxamer Photo Cell During the Photo-Darkening Process)

JOURNAL: Journal of the American Optical Society, Vol. 66, No. 8,  
pp. 743-748 (1947)

ABSTRACT: A number of special cells were prepared in the laboratory of the Lincoln Research Institute. These were investigated for spectrally different varieties of poloxamer. The short-circuit current of a cell was determined as a difference between short-current of a cell and the current when the cell was illuminated. The "short" current was the current when the cell was illuminated; the two currents were measured. For the same spectral band, the difference across the cell. The measurement was made at 450 m<sup>μ</sup>. It was found that the "short" current of those crystals which contained poloxamer and the "short" current of the same crystals which did not contain poloxamer differed by about 10%. It was necessary to dilute to the extent of 10% of the original concentration of poloxamer. By diluting the poloxamer solution, it was found that the short current was increased. The short current was increased by about 10% when the concentration of poloxamer was increased from 10% to 20%. When the concentration of poloxamer was increased from 20% to 30%, the short current was decreased by about 10%.

July 1/7

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KCT-1--p-4-31/2

Spectral Distribution of the Photocurrent of a Selenium 1.056 Volt  
Operated in the Photo Diode Regime

Fig. 7. From the above results it is concluded that the  
ratio of the photo current for the 10-bias regime and for  
the photodiode regime is very nearly constant. This  
means that the current carriers in the photo-diode and in  
the photo-diode effect are derived from the same energy  
level. The ratio / is given and 1.1 percent, of which  
are Soviet and 1 is German.

SUBMITTED April 1, 1950

1. Selenium--Electrical properties 2. Photoelectric Effect--Electrical  
properties 3. Electric currents--Measurement 4. Potentiometers--Appli-  
cations

April 8/5

67203

ACM/PS-50-1-13/88

24.2600  
Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 7, p 162 (USSR)

AUTHOR: Gol'dman, A.G.

TITLE: Photoelectric Effect in the Region Near the Electrodes in Selenium

PERIODICAL: Uch. zap. Leningr. gos. ped. in-ta im. A.I. Gertseva, 1958, vcl 148,  
pp 7 - 13

ABSTRACT: A Se-photovaristor with aquadag electrodes and a DC galvanometer were connected in series in the circuit of a controllable source of alternating voltage up to 250 v. Dark current only caused some pointer flicker in the galvanometer. If, however, the semiconductor layer adjoining one of the electrodes was illuminated by a narrow light probe, a rectified current was detected in the circuit. Its direction corresponded to the positive voltage on the illuminated electrode. At an effective voltage of 250 v the rectified voltage amounted to 4.2 v. The magnitude of the rectified current was proportional to the applied alternating voltage and almost proportional to the square root of the illumination of the region near the electrodes. The spectral maximum of the photo effect in the region near the electrodes was shifted toward the shorter wavelengths as compared ✓

Card 1/2

67203

30V/50-59-7-15788

Photoelectric Effect in the Region Near the Electrodes in Selenium

with the maximum of the photoconductivity. The photo effect that was observed in the region near the electrodes is explained as follows: the drop of the potential which takes place in the Se preparation at the anode, is partially or completely eliminated through the action of illumination

A. Poletayev

✓

Card 2/2

1(3),2(3)

AUTHORS: Gol'dman, A. G., Academician, AS USSR, Sov. 2, -126-4-17, 65  
Kurshhev, A. K.

TITLE: Long "Memory" Effect in Photoelectric Conductivity

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4,  
pp 698-701 (USSR)

ABSTRACT: The data reported in the present paper on the long "memory" were obtained by the authors on occasion of an X-radiation and on the occasion of illumination of cadmium sulfide poly-crystals of photoelectric resistances. The authors determined the difference in the increase of photoelectric resistance at non-excited and (by irradiation or illumination) excited photoelectric resistances. They used the photoelectric current after 20 hours of illumination or irradiation as indicator for the comparison of these states. The first diagram concerns the illumination of a photoelectric resistance type FC-K1 through a green light filter ( $\lambda \sim 540 \text{ m}\mu$ ). A preceding illumination increases the initial photoelectric conductivity of the photoelectric resistance and this increased sensitivity remains. After the passing of several dozens of hours it slowly decreases. The measurements should be made rather

Card 1/4

Long "Memory" Effect in Photoelectric Conductivity

DDV/20-126-4-17/65

rarely as each of them increases the excitation. On the other hand these indicator measurements yield valuable indications on the state of the photoelectric conductor. If preceding illumination or radiation entirely changes the path of the increase curve. Two diagrams illustrate examples. In the investigation of the photoelectric conductivity of cadmium sulfide and similar semiconductors the absence of preceding excitation has to be checked especially precisely, as an unknown previous history would influence the process in a way which could not be taken into consideration. The increase of the photoelectric current in previously not excited photoelectric resistances is of interest. The photoelectric current increases up to a maximum in the flex point and then decreases slowly approaching the steady value of the photoelectric current. Four important phases can be observed in the relaxation processes of the photoelectric conductivity of polycrystalline CIS: The first phase is the accumulation of the excitation and the photoelectric conductivity increases in an accelerated manner. This phase is described to a certain degree by the scheme of V. Ye. Lashkarev and G. A. Fedorus. According to this scheme the photoelectrons originating in

Card 2/4

Long "Memory" Effect in Photoelectric Conductivity 107/26-18-4-17, '65

the valency zone first appear on the capture level and are led by a second photoelectric transition into the zone of conductivity. The second phase of the process is the slowing down of the increase of photoelectric current until a steady value is reached. The third phase consists in the reduction of the photoelectric current after ceasing of the illumination or irradiation until an almost steady darkness value is reached. The fourth phase consists in slow reduction of the accumulated excitation caused by recombination of the electrons with the holes accumulated on the capture level. These electrons then form the "memory" of the semiconductor and the fourth phase can be called the "paling" of the memory. By the phenomenon of long lasting conservation the photoelectric conductivity approaches the phosphorescence. On the other hand the long memory of the photoelectric resistances forms a sphere of phenomena which can be classified between photography and photoelectric effects of low inertia. This memory can be developed by subsequent illumination or irradiation. The authors express their gratitude for assistance in the measurements to T. M. Khliyan. There are 2 figures, 1 table, and 4 references, 2 of which are Soviet.

Card 3/4

Long "Memory" Effect in Photoelectric Conductivity      307/10-123-4-17/65

ASSOCIATION: Rostovskiy-na-Donu inzhenerno-stroitel'nyy institut  
(Rostov-na-Donu Construction Engineering Institute)

PUBLISHED: July 6, 1959

Card 4/4

86830

S/00./60/155/C05/C19/C47  
B019/B067

Z 43500 (1025,1137,1138)

AUTHOR: Zhil'dman, A. G., Academician of the AS UkrSSR  
TITLE: A New Effect of Electroluminescence of Black Carborundum  
PUBLICATION: Fizika i Khimiya Poluprovodnikov, No. 5, 1960, p. 1110

TEXT. O. V. Zhdanov (Ref. 1) discovered and described two kinds of electroluminescence of black carborundum. In the introduction, the author briefly discusses these two kinds, one referred to as luminescence II, the other as "analogous luminescence I". He made experiments with black carborundum of the Zaporozhskiy zavod abrasivnykh izdeliy (Zaporozh'ye Factory of Abrasives). Carborundum crystals were subjected to the action of rectangular current pulses for a duration of 0.0001 microseconds, and a pulse repetition frequency of 0.005 cycles. He made photometric, oscilloscopic, and microscopic studies at room temperature. It was found that in the case of luminescence II amplitude and form of the light source did not depend on the pulse repetition frequency in the range of 0.005 to 0.007 cycles. At higher pulse repetition frequencies

Card 1/2

86830

A New Effect of Electroluminescence of  
Black Carborundum

S/CD/60/156/005/010/045  
B019/B067

luminescence I, which is observed after commutation of the current, begins increasing nonlinearly. This initiates the formation of new sources of luminescence in various crystals. This formation started in a frequency range of from 1500 to 6000 cycles. The author calls it luminescence III. An electron hole junction is formed, the color of which differs from the two other kinds of luminescence and appears after cessation of the current pulse. The author thanks the managers of the Zaporozh'ye Factory of Abrasives for supplying carborundum druses, R. G. Ofengenden for making available a pulse generator, and G. I. Labaznitsk'ov for his assistance in measurements. There are 3 figures and 4 references: 1 Soviet, 1 German and 1 US

ASSOCIATION: Institut fiziki Akademii nauk USSR (Institute of Physics  
of the Academy of Sciences UkrSSR)

SUBMITTED: July 6, 1960

Card 2/2

GOLDMAN, A.G. [Goldman, O.H.]

M.V. Lomonosov's paper on atmospheric electricity in  
P. Masse henbrück's course "Introductio ad philosophiam  
naturalium" (1762). Ukr. fiz. zhur. 6 no.5:579-582 5-9 '62.  
(MIRA 14:11)

I. Institut fiziki AN USSR, g. Kievev.  
(Atmospheric electricity)

4431  
S/155/61, 506/306, 306/030  
D299/D304

24,3500 (1137,138)

AUTHORS: Holdman, O.H., Dudnyk, V.P., and Preskura, C.I.

TITLE: On frequency characteristics of the brightness of  
electroluminescent cells with zinc-sulfide phosphors

PERIODICAL: Ukrayins'kyj fizychnyy zhurnal. v. 6 no. 6, 1961.  
761 - 763

TEXT: The frequency characteristic of an electroluminescent cell with a ZnS phosphor is mainly determined by its capacitance being almost linear (in case of a constant voltage), viz.  $i = 2\pi FVC$ . The frequency characteristic of the brightness  $B$  of a cell is approximately given by the formula  $B = afk$ , where  $a$  and  $k$  are constants ( $0 < k < 1$ ). If a resistor is connected in series with the cell, a maximum appears on the frequency characteristic at a frequency that is lower. the greater the ballast resistance; the brightness decreases fast with frequencies higher than that corresponding to maximum brightness. Insertion of a capacitance in parallel with the ballast resistor, leads to a certain linearization of the characteristic. X

Card 1/2

S 785/61/006, 006, 006, 006

D-29/D304

On frequency characteristics of ...

Thereby it is possible to regulate the capacitance (in a certain interval), so that the brightness becomes practically independent of the frequency. It is expedient to form a resonance circuit by inserting an inductance. This has the following advantages: a) The voltage at the cell is increased (three- to tenfold) as compared to the source voltage, b) The brightness is greatly increased (a hundredfold), c) The current source is more efficiently used. 1) The electroluminescence yield is higher. The frequency characteristics of electroluminescent elements reflect also the peculiarities of the electroluminescence mechanism. Thus, if dissimilar luminescent centers are present (ZnS Cu, Mn), the frequency characteristics under similar electrical conditions, but in different spectral regions, have different exponents  $k$ . The frequency characteristics for the variable luminescence-component and for its constant component are in a different ratio depending on the luminescence relaxation process. There are 4 figures.

X

ASSOCIATION: Instytut fizyky AS UkrSSR (Institute of Physics of the AS UkrSSR, Kyyiv) [Abstractor's note: Essentially complete translation!]

Card 2 of

4/20/71, 120147Z - 5/20/71  
S100/100

TO: Tikhonov, A. S., Member of the Ao USSR  
SUBJ: The influence of the injection of carriers upon the luminescence of block carbide crystals (luminescence III)

POLIC: M. V. Ignat'ev, S. N. Dobryg, V. Iu. no. 3, 1971, 10-762

TEXT: The influences of a so-called luminescence III of a carbonium crystals were detected by scillographic investigation. The influence of sufficiently strong rectangular field pulses in quick succession (less than 250 μsec interval) upon crystals of block carbide with an electron-hole junction cause the so-called luminescence III (caused by injection of carriers through an electron-hole junction), a luminescence II (individual glowing points or point chains on the periphery of the region of luminescence II) and the so-called "luminescence III". The color of luminescence III is different from that of luminescence II. The average value of its luminosity increases faster than linearly with the pulse frequency. Its instantaneous value increases in the intervals between two pulses. Luminescence III appears after the cessation of the preceding pulse and is ex-

Card 1/2

Oscillographic Investigation ...

SL 00-68/144/714-073-104  
31/1/1962

tinuously than the subsequent pulsed regime. The luminescence is due to afterglow of electroluminescence. It is generated by repeated sufficiently long pulses of sufficiently high voltage amplitude acting on the electron-hole junction in the  $\text{B}_\text{N}$  direction. The recombination mechanism of the luminescence is of carbonium crystals is evident. There are 2 figures. The English-language reference is: A. G. Chynoweth, A. G. Mc Kay, Phys. Rev., 102, 369 (1956), 106, 313 (1957); A. G. Chynoweth, G. L. Peacock, J. Appl. Phys., 29, 1108 (1958).

ASSOCIATION: Institut fiziki Akademii nauk UkrSSR (Physics Institute of the Academy of Sciences UkrSSR)

SUBMITTED: February 3, 1962

Corr. 2/2

GOL'DMAN, A.G., akademik; TOROPKOVA, L.V.

Infrared electoluminescence of cuprous oxide. Dokl. AN SSSR  
147 no. 5:1053-1056 D '62. (MIRA 16:2)

1. Institut fiziki AN UkrSSR. 2. AN UkrSSR (for Gol'dman).  
(Luminescence) (Copper oxides)

S/020/63/149/003/011/028  
B102/B186

AUTHORS: Gol'dman, A. G., Academician AS UkrSSR, Proskura, A. I.

TITLE: Determination of the spectral burst composition in the Gudden-Pohl effect for luminophores with ZnS basis

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 3, 1963,  
567-570

TEXT: The authors measured the spectra of luminescence bursts arising owing to the Gudden-Pohl effect. The luminophor was excited by filtered light from a mercury lamp; an YM-2 (UM-2) monochromator (0.5 mm slit), a photomultiplier of type φ3Y-19M(FEU-19M)( $4 \cdot 10^{-8}$  a dark current) and a galvanometer ( $0.41 \cdot 10^{-9}$  a/scale un.) were used for the measurements. Luminophors with high yield were prepared by boiling a mixture of 150 ml distilled water, 5 g special ZnS and 60 mg  $\text{SnCl}_2$  for 15 min. After drying, the remaining powder was annealed (20 min,  $800^\circ\text{C}$ ) in an open quartz ampule. The luminophor obtained was analyzed:  $6 \cdot 10^{-4}$  g Sn and  $7 \cdot 10^{-5}$  g Cu per g of ZnS. A layer (0.1 mm) of it was deposited between the electrodes (metal and  $\text{SrO}_2$ -coated glass). The emission spectra have a peak at  $525\mu$

Card 1/2

Determination of the spectral ...

S/C20/63/149/003/011/028  
B102/B186

and almost Gaussian shape. The spectrum of photoluminescence is somewhat shifted with respect to the light sum spectrum of the Gudden-Pohl effect toward the short-wave side (by  $0.532\mu$  at the peak, somewhat more at the short-wave side where it forms a tail). A comparison between the spectra of photoluminescence luminosity or the light sum of G-P effect and phosphorescence luminosity 30 sec after excitation also show a similar effect: the second spectrum is broader and, especially at low intensities, shifted to the blue side. There are 4 figures.

ASSOCIATION: Institut fiziki Akademii nauk USSR (Institute of Physics of the Academy of Sciences UkrSSR)

SUBMITTED: November 3, 1962

Card. 2/2

L 10836-63                    EWT(1)/BDS--AFFTC/ASD  
ACCESSION NR: AP3000743

S/0020/63/150/003/0519/0522

AUTHOR: Gol'dman, A. G.; Member Academy of Sciences USSR; Proskura, A. I.

56  
55

TITLE: The Nature of the Gudden-Pohl effect

SOURCE: AN SSSR. Doklady, v. 150, no. 3, 1963, 519-522

TOPIC TAGS: luminors, external electric field, electrons

ABSTRACT: In order to check the theory of this effect suggested by D. Currie according to which the external field empties the traps formed previously by excitation, the authors have studied this effect with the luminor ZnS-Cu, Sn described previously by them (DAN, 149, 3, 1963). The excitation was with a PRK-4 quartz lamp using UPhS-3 light filter, the long-wavelength irradiation with a 40 w bulb, LRS-3 light filter. The flash was produced with a-c field, 50 hz. The authors conclude on the basis of the results obtained that the external electric field interacts with an interval protecting electric field produced by electrons trapped on the deep levels. The properly oriented external field partly removes the protecting electrons, and the excited centers recombine with free electrons producing the flash. Orig. art. has: 2 figures.

Association: Institute of Physics, Acadmy. of Sciences

Card 1/2

L-16143-65 EWT(1)/EWG(k)/EWT(m)/EPA(w)-2/EEC(t)/EEC(b)+2/EIP(t)/EWP(b)  
Pz-6/Pab-10 IJP(c)/ESD(gs)/ESD(t)/AFWL/ASD(a)-5/AS(mp)-2 JD/AT/NH  
ACCESSION NR: AP4049125 8/0020/64/159/001/0043/0045

AUTHORS: Goldman, A. G. (Academician AN UkrSSR); Zholkevich, G. A., Lazar',  
N. P.; Dudnik, V. P.

TITLE: Volume electroluminescence and emission of hot electrons from sublimated/<sup>3</sup>  
films of zinc sulfide

SOURCE: AN SSSR. Doklady\*, v. 159, no. 1, 1964, 43-45, and top half of insert  
facing p. 44

TOPIC TAGS: luminescence, electron emission, thin film/ FK 106 Cu activated ZnS

ABSTRACT: By using a slotted arrangement of electrodes, the authors discovered volume luminescence from one electrode to another in sublimated films of ZnS. The initial material was ZnS activated by Cu (brand FK-106). Copper chloride was added to this, and the mixture was poured into an alundum crucible and then placed in a high vacuum at high temperature (1000-1200°). The glass base was placed in a zone with a temperature of 300-350°. The resulting material was polycrystalline, dense, strongly bonded to the glass, forming a transparent film 3-10 microns thick, but scattering light slightly. Two electrodes were placed on top of the

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L 16143-65  
ACCESSION NR: AP4049125

2

film, from a few tenths of a millimeter to 1.5-2 mm apart. The electrodes were plated by sublimation in a vacuum, chiefly with Al, but Cu, In, and Au were also tried. A potential was impressed across the the electrodes, and the film began to glow at a potential of about  $10^4$  v/cm. It glowed from cathode to anode, varying in uniformity in different experiments. The brightness of the luminescence, given in arbitrary units, may be expressed by the general formula  $B = AV^k$ , where V is given in kv and  $k > 10$ . For an example, when k was 13, for a particular arrangement of the electrodes, B ranged from 3 at 0.3 kv to 43 000 at 0.64 kv. The current through the electrode system exhibited a dependence on the voltage that was approximately exponential as well. On oscillograms, with alternating field, a correspondence was observed between brightness maximums and voltage peaks at low frequencies (100 cycles), but this correspondence became weaker for higher frequencies (1000 cycles). It was also noted that electroluminescence of the type observed was accompanied by marked "cold" emission of hot electrons. "The authors express their thanks to R. D. Fedorovich for his kind assistance in preparing the lamp to detect emission." Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Institut fiziki Akademii nauk UkrSSR (Institute of Physics, Academy of Sciences, UkrSSR)

Card 2/3

L 16143-65  
ACCESSION NR: AP4049125

SUBMITTED: 08Jul64

SUB CODE: SS, OP

NO REF SOV: 003

ENCL: 00

OTHER: 008

Card 3/3

L 64497-65 EWT(1)/EWT(m)/EMF(t)/EMF(b) LJP(c) ID

ACCESSION NR: AP5012623

UR/0051/65/018/005/0894/0896

535.373.1

AUTHORS: Gol'dman, A. G.; Proskura, A. I.; Lysenko, S. F.

TITLE: Excitation spectra of the Gudden-Pohl effect in copper-activated zinc-sulfide phosphors

SOURCE: Optika i spektroskopiya, v. 18, no. 5, 1965, 894-895

TOPIC TAGS: emission spectrum, zinc compound optic material, optic activity, phosphorescence, luminescence, photoconductivity

ABSTRACT: This is a continuation of earlier work (DAN SSSR v. 149, 1419, 1963 and v. 150, 519, 1963), in which the emission spectra of the Gudden-Pohl effect in ZnS-Cu,Sn phosphor was measured. To measure the excitation spectra, it was necessary to get rid of the combined excitation effects which increase the phosphorescence of the impurity and also the Gudden-Pohl effect. Since it was shown in the earlier work that the Gudden-Pohl effect involves not only an excita-

Card 1/3

L 64497-65

ACCESSION NR: AP5012623

tion of the activation centers by short-wave illumination but also a stable internal electric field resulting from the superposition of an external field on the phosphor in the presence of excitation, precautions were taken in the experiments to quench the mechanism whereby excitation of the surrounding phosphor is transported to the Gudden-Pohl effect centers. This was done by application of AC voltage without illumination to the phosphors. This left only a second-order Gudden-Pohl effect, which was the main object of the measurements. The preparation of the phosphor powders and the test technique are briefly described. The Gudden-Pohl excitation spectra were found to consist of a single band with a sharp maximum at 340 nm. This practically coincides with the long-wave absorption edge of pure ZnS (338 nm) and agrees with the width of the forbidden band of ZnS (3.65 eV). It is therefore concluded that the primary act in the excitation of Gudden-Pohl luminescence consists in an electron transfer from the filled band to the conduction band and establishment of photoconductivity. Measurement of the phosphorescence excitation spectra, which were determined together with the Gudden-Pohl excitation spectra, confirmed the model wherein the phosphorescence centers

Card 2/3

L164497-65  
ACCESSION NR: AP5012623

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ASSOCIATION: None

SUBMITTED: 21Dec64

ENCL: 00

SUB CODE: OP

NR REF SOV: 002

OTHER: 003

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Card 3/3

L164497-65  
ACCESSION NR: AP5012623

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ASSOCIATION: None

SUBMITTED: 21Dec64

ENCL: 00

SUB CODE: OP

NR REF Sov: 002

OTHER: 003

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Card 3/3

L164497-65

ACCESSION NR: AP5012623

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ASSOCIATION: None

SUBMITTED: 21Dec64

ENCL: 00

SUB CODE: OP

NR REF SOV: 002

OTHER: 003

Card 3/3  
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L 11938-66 EWT(1)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD  
ACC NR: AP6001649 SOURCE CODE: UR/0051/65/019/006/0943/0950

AUTHOR: Gol'dman, A.G., Proskura, A.I., Lysenko, S.F.

39  
36  
B

ORG: none

TITLE: Three types of Gudden-Pohl effect and the phosphorescence of copper-activated zinc sulfide

SOURCE: Optika i spektroskopiya, v. 19, no. 6, 1965, 943-950

TOPIC TAGS: zinc sulfide, phosphorescence, luminescent center

ABSTRACT: The authors consider a characteristic property of the Gudden-Pohl effect (GPE) which consists in the conservation for an extended period of time in the solid dielectric of a certain portion of the absorbed light energy in the form of ionized luminescence centers and electrons, with their radiation recombination controlled by the electrical field. The mechanism of GPE center excitation is considered, and three types of GPE are described. The possible interaction of these types is analyzed. The paper deals primarily with a study of the physical nature and laws of the 2nd and 3rd types of GPE, with particular attention given the derivation of the 3rd type and its control. The 2nd type is the effect arising as the result of the preliminary combined effect of shortwave radiation and the internal electric field; the 3rd type is the

UDC: 535.373

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L 11938-66

ACC NR: AP6001649

effect obtained as the result of new excitation arising without new radiation. The excited luminescence centers of the GPE in copper-activated zinc sulfide luminescent materials are regarded as phosphorescence centers protected by local fields against recombination. The characteristics of the 2nd and 3rd types of GPE are defined and methods of controlling these processes are devised. Orig. article has: 2 tables and 6 figures.

SUB CODE: 20, 11 / SUBM DATE: 06Jul64 / OTH REF: 003

*b6  
Card* 2/2

L 26494-66 EWP(k)/EWT(1)/EWT(m)/ETC(f)/EWG(m)/T/EWP(t)/ETI/EWP(e) IJP(c) RDW/  
ACC NR: AP6013058 RM/JD SOURCE CODE: UR/0048/66/030/004/0593/0598

AUTHOR: Gol'dman, A. G.; Zholkevich, G. A.; Lazar', N. P.; Dudnik, V. P.

ORG: None

TITLE: Investigation of the electroluminescence of sublimated films Report, Fourteenth Conference on Luminescence held in Riga, 16-23 September 1965

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1968, 593-598

TOPIC TAGS: electroluminescence, electric conductivity, phosphor film, zinc sulfide

ABSTRACT: The paper gives the results of further investigation of sublimated copper-activated zinc sulfide films described by the authors earlier (Doklady AN SSSR, 159, No. 1, 48, 1964) and used for the preparation of slit type electroluminescent cells. The basic preparation procedure was developed by G.A.Zholkevich and V.P.Dudnik. The initial material was ZnS powder with about  $10^{-3}$  g/g Cu. Sublimation from the crucible in a quartz tube began at 850-900°C and was continued for 1 to 2 hours, depending on the film thickness desired; in the process the furnace temperature rose to 1100-1200°C. Sublates with blue emission were deposited in the 150 to 300° zone with any orientation of the substrate relative to the crucible. Condensation occurred not from a molecular beam, but from a "gaseous cloud" of appreciable density, so that all angles of incidence were equally probable. The operating vacuum was  $10^{-4}$ - $10^{-5}$  mm Hg. The

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ACC NR: AP6013058

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reproducibility of the films was good. The advantages of the technique are described and it is noted that it can be used not only for slit type cells but also for cells of the sandwich type. Electroluminescence with a brightness of up to 30 nit could be satisfactorily excited by either ac or dc. The emission peak is located at about 475 m $\mu$ . In the case of slit type cells with an interelectrode gap exceeding 1 mm the electroluminescence is uniformly distributed over the interelectrode space. The brightness B is characterized by  $B = B_0 V^n$ , where V is the voltage and n is an exponent that varies from 9 to 12 for the sandwich type cells and from 12 to 14 for the slit type. In fields stronger than  $10^4$  V/cm, the variation of brightness with the current is given by  $B = C I^m$ , where m is about 2; in weaker fields the values of m vary in the range from 4 to 9. The sublimated films in the form of slit type cells with aluminum electrodes (gap about 1 mm) were investigated at 77° K in fields of up to 20 KV/cm. A number of interesting facts were observed: upon increase of the voltage to a critical value the cell becomes a negative resistance; after going through the critical voltage the new state with stimulated conductivity (the value of this may be as high as 50 times the conductivity at room temperature) is stable (the current-voltage characteristics are reversible); the stimulated state can also be induced by UV irradiation at 77° K; the stimulated state can be destroyed by heating and re-established by either of the above-mentioned two procedures; in the stimulated state, as in the "ordinary" state, the current is proportional to the voltage to the 7-th or 8-th power; the brightness dependence in the stimulated state, as in the ordinary state, is proportional to the current to approximately the second power; owing to the high current values realiz-

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L 26494-66

ACC NR: AP6013058

able in the stimulated state in this state it is feasible to obtain brightnesses an order of magnitude higher than in the ordinary state. The authors also prepared CdS films 20-30 microns thick by vacuum sublimation onto conducting glass substrates heated to 350 to 450°; these were then drifted with gallium to obtain n-type films with a resistivity of  $10^2$ - $10^3$  ohm cm. The CdS films were further coated (also by vacuum evaporation) with zinc telluride doped with silver and the combined film was annealed for 5-10 min at 520° to induce ordering. These double layer films also exhibited bright luminescence; the electroluminescence at liquid nitrogen temperature with the voltage in the "conducting" direction attained 10-15 nit, whereas with the voltage in the "blocking" direction the brightness was about an order of magnitude lower. Both the current and the voltage appear to be varying power functions of the voltage. Orig. art. has: 5 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 002/ OTH REF: 005

Card 3/3 CC

L 14859-66 EWT(1)/EWT(n)/EWP(b)/EWP(t) IJF(c) AT/JD

ACC NR: AP6001722

SOURCE CODE: UR/0020/65/165/004/0786/0789

AUTHOR: Gol'dman, A. G. (Academician AN UkrSSR); Zholkevich, G. A.; Lazar', N. P. 79

ORG: Institute of Physics, Academy of Sciences UkrSSR (Institut fiziki Akademii nauk  
UkrSSR)TITLE: Stimulated currents and electroluminescence in sublimated zinc sulfide films  
at 77K

SOURCE: AN SSSR. Doklady, v. 165, no. 4, 1965, 786-789

TOPIC TAGS: zinc sulfide, electroluminescence, thin film circuit, volt ampere char-  
acteristic, electric conductivity, uv irradiation

ABSTRACT: This is a continuation of earlier work by the authors (DAN, v. 159, no. 1,  
43, 1964) dealing with electroluminescent slit cells with sublimated zinc-sulfide  
cells. The present article reports briefly tests of these cells at 77K, obtained by  
applyin a dc voltage (from 100 to 2500 v) and measuring the photoluminescence with a  
photomultiplier. The slit cell consists of a sublimated ZnS film on a glass sub-  
strate. The results showed that when the voltage is raised to a critical value, the  
cell becomes a negative resistance. Reduction of the voltage after going through the  
critical value establishes a new state of the cell with stimulated conductivity, which  
in some cases exceeds the conductivity at room temperature by a factor or 50. The  
stimulated state is stable over a long time and its volt-ampere characteristic is re-  
versible. The stimulated state can also be established by preliminary ultraviolet

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UDC: 539.293 : 535.376.2

L 14859-66

ACC NR: AP6001722

irradiation of the cell at 77K. It can be eliminated by heating and re-established by one of the indicated methods. In the stimulated state, as in the normal state, the current is proportional to approximately the seventh or eighth power of the voltage. The electroluminescence brightness in stimulated states increases more rapidly than linearly with current, being proportional to almost the square of the current. The brightness obtained in the stimulated state, is many times larger than at room temperature. The experimental results are described in some detail. Unlike the results obtained by C. W. Litton and D. C. Reynolds (Phys. Rev. v. 125, no. 2, 516, 1962 and v. 133, no. 2A, A 536, 1964) for CdS, the luminescence was obtained in both unstimulated and stimulated state, and the volt-ampere characteristics are reversible in the present experiment. Orig. art. has: 4 figures.

SUB CODE: 20/ SUMB DATE: 09Jun65/ ORIG REF: 001/ OTH REF: 005

Card 2/2 JH

L 08134-67 EWT(1) IJP(c) AT

ACC NR: AP6033525

SOURCE CODE: UR/0185/68/011/010/1114/1117

AUTHOR: Hol'dman, O. H. -- Gol'dman, A. G.; Zholkevych, H. O. --  
Zholkevich, G. A.; Lazar', M. P.; Lazar', N. P.49  
8

ORG: Institute of Physics, AN URSR, Kiev (Instytut fizyky AN URSR)

TITLE: Electroluminescence of ZhS crystals and electron emission in vacuum

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 10, 1966, 1114-1117

TOPIC TAGS: electroluminescence, electron emission, zinc sulfide, vacuum

ABSTRACT: A description is given of the conditions of formation, existence, and quenching of the electron emission in vacuum and of associated electroluminescence of the ZnS crystals. Orig. art. has: 5 figures. [Based on authors' abstract]

SUB CODE: 20/ SUBM DATE: 15Jul65/ ORIG REF: 001/ OTH REF: 003/

Card 1/1 nst

ACC NR: AP7001544

SOURCE CODE: UR/0020/66/171/003/0555/0558

AUTHOR: Gol'dman, A. G. (Academician AN UkrSSR); Zholkevich, G. A.; Lazar', N. P.

ORG: Physics Institute, Academy of Sciences UkrSSR (Institut fiziki Akademii nauk UkrSSR)

TITLE: Negative resistance and a stimulated condition in electroluminescent zinc sulfide films at 77K

SOURCE: AN SSSR. Doklady, v. 171, no. 3, 1966, 555-558

TOPIC TAGS: photoluminescence, zinc sulfide, electric measurement

ABSTRACT: The excited state of electroluminescent zinc sulfide films was studied at a temperature of 77K. This excited state was established either by ultraviolet irradiation or by application of electrical fields. The luminescence of the excited state was measured with the electroluminescent circuit placed in a liquid nitrogen cryostat. An FEU-17 photomultiplier connected either to an M-95 galvanometer or to an EPPV-60 automatic recorder was used to perform the measurements. The spectral measurements were made with an SF-4 spectrophotometer. The spectra of the excited and non-excited states practically coincided; the maximum was located at 465 m $\mu$  and the halfband width was 76 m $\mu$ . A more accurate determination of the stimulated state was made, and the possible effects of redistributing the voltage between the lumino-phor and the pre-electrode regions was eliminated by measuring the potential drop

Card 1/2

UDC: 535.376+535.377+537.226.8

ACC NR: AP7001544

across the luminophor with probes. The electroluminescent film was made by depositing a layer of zinc sulfide 20-30  $\mu$  thick on glass; aluminum electrodes were vacuum deposited on the film. Measuring probes, made from tungsten wires 0.2 mm thick, were embedded in the film at a depth of  $\sim$ 10  $\mu$ . The excited state was established by applying a critical voltage (428-640 v for electrodes placed 0.72 mm apart) across the electrodes. Ultraviolet irradiation as well as the critical voltage created a stable excited state that exhibited a several-fold rise in conductivity (at currents from  $3 \times 10^{-9}$  to  $65 \times 10^{-6}$  amp for probes placed 0.27 mm apart) and in electroluminescent brightness. The volt-ampere characteristics were identical and the thermoluminescence had equal peaks for both methods of excitation. Orig. art. has: 4 figures.

[IV]

SUB CODE: 20/ SUBM DATE: 26Apr66/ ORIG REF: 002/ OTH REF: 005/  
ATD PRESS: S110

Card 2/2

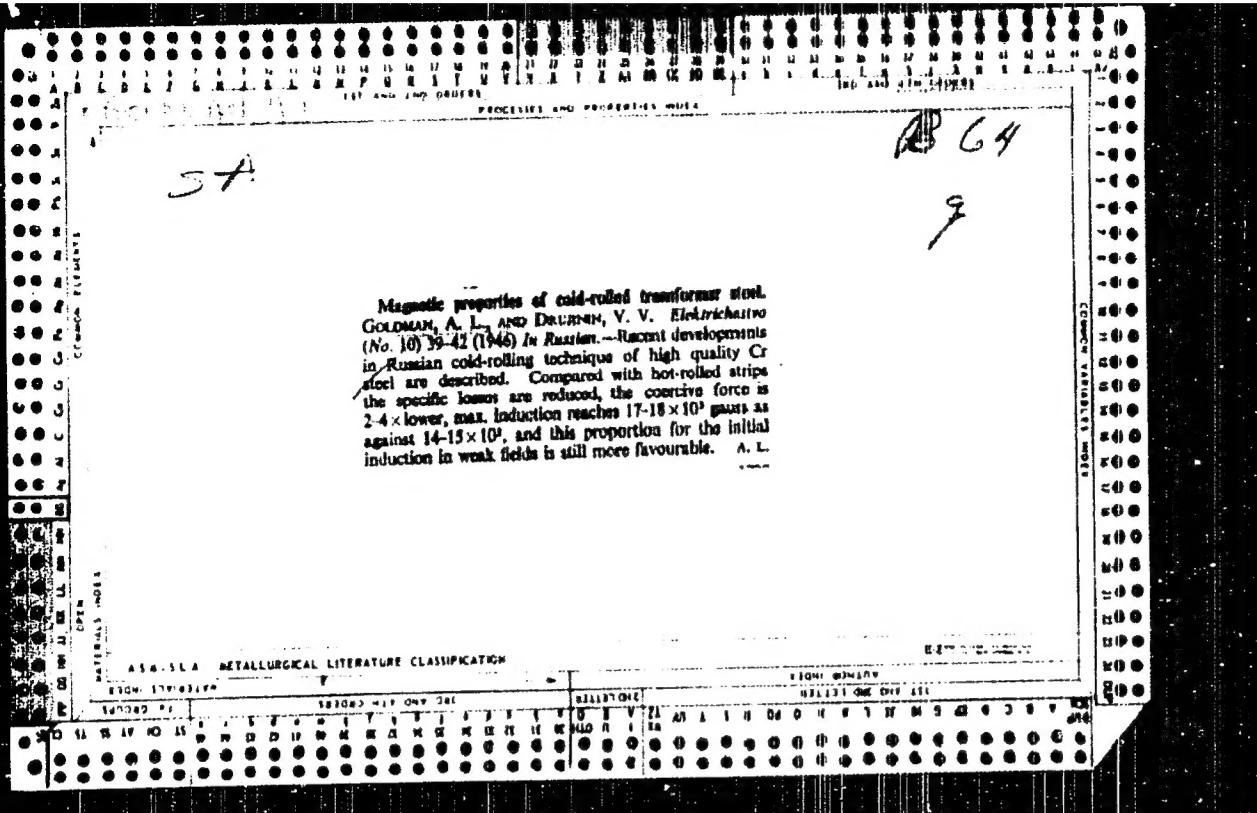
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Casting internal sleeves for diesel cylinders. Lit.proizv.  
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(Diesel engines—Cylinders)

GOLDMAN, A. L. and SHAPIRO, B. S.

"Rolling Thin Carbon Steel Sheet with High Elastic Properties," Stal',  
No.6, pp. 89-94, 1946

Evaluation B-60430



GOL'DMAN, A.L., inzhener; CHERNOBROVKINA, Ye.S., inzhener; GROBMAN, R.M.

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(MLRA 9:1)

1.Verkh-Isetskij metallurgicheskiy zavod.  
(Sheet steel) (Rolling (Metalwork))